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ویژه نامه
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ششمین گنگره بین المللی
سرطان

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Introduction: Breast cancer is an abnormal growth of cells; a malignant (cancerous) tumor that is derived from cells of the breast. It occurs mostly in women, although in some rare cases men can develop breast cancer as well. HIFU is an acronym that stands for High Intensity Focused Ultrasound, and this is an innovative cancer treatment option that uses the power of sound waves to destroy cancerous tissue while minimizing damage to surrounding tissues. The noninvasive ablation of tumors with high-intensity focused ultrasound (HIFU) energy has received increasingly widespread interest. The temperature within the focal volume of an ultrasound beam is rapidly raised to cytotoxic levels. HIFU can selectively ablate a targeted tumor at depth without any damage to surrounding or overlying tissues. Animal studies have shown that HIFU-ablation is safe and effective for the treatment of implanted breast malignancies. The results from early clinical trials (Phase I and II) are encouraging, suggesting that HIFU is a promising treatment for small breast cancer. Once oncologic efficacy data from large-scale randomized clinical trials are available, HIFU ablation may become an attractive treatment option for patients with small breast cancer, especially the elderly.

Key Words: HIFU, Breast cancer